SPRING SEMINAR
March 25, 1980
Copley Plaza Hotel
Boston, Massachusetts

As usual, our 1980 Spring Seminar is scheduled in conjunction with the New England Hospital Assembly.

This year's program promises to be a most rewarding experience for those who attend. The program is presented and conducted by the New England Hospital Engineers Society - your society.

The speaker will be Mr. Robert Bartels, Life Safety Consultant to JCAH. The first phase of the program will deal with how to determine and develop equivalencies for hospitals and the second phase will be on levels of protection according to the JCAH Unit Concept.

The fee for this seminar is $30. Attendees will receive two textbooks with a total value of $21 and a sit-down dinner to be served at approximately 12:30 p.m., the cost of which is $13.63 per person. All this for a $30 fee! How can we do it? It's easy! We are a non-profit hospital engineers society whose members pay a small membership fee of $15 each year. Our entire board of directors gives of themselves to promote seminars and educational programs which are the objectives of our society. No one receives compensation for his services.

As you can see, your membership dues and the small fee charged to attend the seminars make it all possible.

We have all attended one-day seminars put on by various institutions and agencies at one time or another. These cost anywhere from $75 to $400. Some of them are worth the money, others are not. In any case, it takes a great deal of time and expense to conduct a good seminar and you usually have to pay for it. If you will give this a little thought, you will realize that your society dollar for dollar can't be matched because it is your society and there's no one making a profit.

Let's all do our part in supporting the continued success of the New England Hospital Engineers Society by mailing our registration cards early. Thank you.

Seminar Coordinators

NEW NEHES SECRETARY

John J. Crowley has been an active member in your Engineers Society since he graduated from Lowell Technical Institute where he received a Bachelor of Science degree in Industrial Engineering. John began working at St. John's Hospital, Lowell, after high school graduation and assumed responsibility for Building Operations & Engineering upon graduation from LT.

John has been a member of the Middlemac Engineer group since 1974. This group represents 20 hospitals in the northeastern part of Massachusetts. Currently John is the president of that group. He has been a member of NEHES and ASHE since 1975 and in 1979 was a founding member of the new Massachusetts Hospital Engineer Group.

John and his wife Mary Lou live in Dracut, Massachusetts and have a 3-year-old son. John is active also in the Lion's Club of Dracut and the Chelmsford Lodge of Elks.

FALL PROGRAM COMMITTEE REPORT

The plans for the Fall Seminar are progressing on schedule.

The Seminar will be held at the Hilton at Merrimack, located in Merrimack, New Hampshire, October 15, 16 & 17, 1980. I might say that I do not believe we could have a more central location for the states.

The booking has been made and confirmed for Wednesday noon until Friday noon, although we have not yet placed any prices on the various items.

Stanley A. Addyman
Chairman, Fall Seminar

MANAGE ON 50% FUEL NEEDS

A conference was held in Washington, D.C. on 21-22 September, 1979 by the Health Resources Administration (HRA) during which the subject of emergency planning for fuel shortages was discussed. Participants from New England included Dan Bail (assisting Maine Hosp. Assoc.), Marsha Bird, Mass. State Health Planning Agency, Thomas Feeherry, N.H. Hosp. Assoc., Alan Goldberg, Mass. Hosp. Assoc., Bill Rosenberg, R.I. State Dept. of Health. In all, 100 persons attended, representing AHA, HCA, American Health Care Association, local & state governments, Blue Cross/Blue Shield, hospital managers, private consultants and health and energy organizations and Federal agencies. Burt Kline, Director of Division of Energy Policy and Programs of H.R.A., said the conference was to set the stage for planning for limited fuel resources. Mr. Kline pointed out the rise in fuel costs - but more importantly that the future production of oil will decline as general consumption increases. The net result almost has to be spot short falls and serious controls on fuel consumption. Some of the ideas coming from this conference were:

Should we shift from buying sophisticated biomedical equipment to energy-related modernization?

Review extensive use of plastics in medical products which are petroleum derivatives.

Are hospitals ready to identify priorities if they are limited to 50% of oil and gasoline requirements?

Should JCAH accreditation be based upon proper handling of energy problems?

Should certificate-of-need process deal with retrofitting of energy plants and not only joint planning?

Ed Bertz, AHA, manager of Health and Facility Standards, said that only 25% of the 8,000 hospitals "have energy management programs despite lack of financial reimbursement incentives." Half have programs, but when analyzed you don't find ongoing substantive effort.

One participant concluded from the conference that everyone there should leave the conference with a commitment to some kind of positive action which will begin to stimulate those not in attendance to get a handle on the real problem.

David B. Hathaway, Editor
MAINE NEWS

The Maine group held its first fall meeting on November 19, 1979 at the Howard Johnson Motor Lodge in Portland, Maine.

A presentation of energy savings at Mid-Maine Medical Center was given by Roger Crosby and Bryant Bourgoign. They concentrated on water, electric and fuel. The greatest saving was with water, fuel second, and electric third.

The December meeting was held at Lewiston, Maine with representatives from Central Maine Power and Bangor Hydro who explained billing and rates for health care facilities.

Bruce G. Jones
Secretary/Treasurer
Maine Group

NEW HAMPSHIRE NEWS

The New Hampshire Society of Hospital Engineers has had three meetings to date this year: The September meeting was held at Blue Cross/Blue Shield in Concord, N.H. The program was presented by Karlton Klarddie and Jeff Landers of Simplex Time Recorder Company and explained the Simplex New Life Alarm System, illustrated by a film. The October meeting was held at the new Catholic Medical Center, Manchester, N.H., at which time the members present had an opportunity to tour a couple of the new facilities. The November meeting was held at Frisbe Memorial Hospital at Rochester, N.H. Mr. Al Plante of the Ritchie Organization gave a very informative talk on codes and regulations pertaining to hospitals. A copy of code requirements was given to each member in attendance.

I think the New Hampshire group is off to a flying start.

Stanley A. Addyman
N.H. State Representative

WHY ARE ENGINEERS LEAVING?

A recent active member of the Maine Engineer Group commented in general on what most hospitals engineers usually face — daily problems and harassment from all directions. Never-ending demands with little or no acknowledgement for work done well or in a timely manner can make you say “We’re in a tough business.” As with a few other engineers he’s left the hospital engineer field, a loss which all his peers regret very much. We also know this has happened to several other good engineers in other states.

CORRECTION

The new name for the Truesdale Union Hospital is now Charlton Memorial Hospital. And for too long we have not given credit to Jullien Bellevance, whose current job title is Assistant Director. That title of Construction Supervisor was shed quite awhile ago.

RHODE ISLAND NEWS

The R.I.H.E. September meeting was held at Kent County Memorial Hospital with a presentation by the Governor’s Energy Office on their interpretation of the Federal Temperature Restrictions and how it relates to the Hospital Complex.

The basic issue was the fact that generally all patient related areas were exempt from compliance and areas not used for patient functions were required to comply with 65° heating and 78° cooling requirement where it could be accomplished.

A brief discussion on Legionnaire’s Disease was presented by Jay Hunt, and copies of reports from the Center for Disease Control on this subject were handed out to members present.

There has been a rash of Chemical Companies reacting to the Water Tower Sterilization Proposal and it was very questionable as to the validity of claims from some companies as to whether they could guarantee to free your water tower from complete absence of Legionnaire’s Disease.

The October meeting was held at Our Lady of Fatima Hospital with a presentation on Signet Flow Meters and Spence Steam Regulators.

Signet Meters are used to monitor flow conditions and the Spence Regulators used to control steam flow for better control and energy savings.

The Novmeber meeting was held at R.I. Hospital and covered the proposed New State Regulations covering Waste Disposal and what the Hospitals could do to comply with these new (very complex) regulations. After a fairly long discussion on this subject it was decided that it would be necessary to conduct another meeting to include Engineers, Lab Personnel, X-Rays and possibly housekeeping involved to cover all areas to try and determine exactly what type of waste in general and best methods to dispose of the waste is.

It was noted that not all hospitals in Rhode Island are equipped to incinerate infectious and pathologists’ waste as this time.

Roland Huguenin
R.I. State Representative
NEW ICU CONSOLE

Not too many hospitals have the services of a cabinet maker on their staff, but Lawrence Memorial Hospital of Medford found that very after hiring a new carpenter that he was outstanding cabinet maker. Recently the intensive care unit required replacement of 12-year-old monitoring equipment. The new equipment, instead of being suspended from the ceiling like the old monitor, will now be in a console. This wasn’t too difficult for Herb Preston because he had already rebuilt practically every nursing station and utility room in the hospital. The complexity of this job was to build something to fit equipment which would slide in and out of the console as well as be in small enough pieces to be moved from the sub basement carpenter shop to the third floor ICU. The photographs show the top piece in one section, the shelf which slides in and is attached, and the two base sections which are temporarily clamped together with “C” clamps.

Cabinet maker Herb Preston works on shelf in back as helper attaches formica.

The other complicated part of this project is to gradually alter other built-in cabinets in the ICU/CCU nurses station as well as install the new console without closing down the unit. Herb has great talent and is a true professional. A hospital with complex cabinet design problems may want to contact Lawrence Memorial. I’m sure we can negotiate Herb’s design capability. Next issue will have the completed installation.

David B. Hathaway
Tel: (617) 396-9250

CONNECTICUT NEWS

The Connecticut Society is actively involved with CHA through an ad-hoc Committee on HEW-504. This combined effort should produce better information for all hospitals and hospital engineers and answer many of the questions which develop between engineering and administration.

The Connecticut Society is also working with CHA on the National Energy Act to complete the preliminary Energy Audit Forms and to sponsor and attend Energy Audit Training sessions. In addition, we are preparing for the second phase of this program, which is the more sophisticated technical audit.

The CHA Statewide Program, under this act, will only be funded 20 percent by Federal funds. CHA is trying to get Blue Cross to fund the remainder.

The proposed Connecticut State Building Codes for 1979 have items which are not in keeping with HEW requirements and are energy wasteful. The Connecticut Group is challenging at least that Code Section dealing with operating room air conditions, changes per hour, fresh air, etc., in an effort to bring them in line with the latest HEW requirements, which are much less stringent.

Richard E. Popham
Connecticut State Representative

ROLAND L. HUGUENIN
Chief Engineer
Kent County Memorial Hospital
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Warwick, Rhode Island 02886
Tel: (401) 737-7000 — Ext: 417

Employed at Kent Hospital for 14 years, Roland has worked as a Refrigeration and Air Conditioning Technician, Foreman, Assistant Engineer and for the last 4 years as Chief Engineer.

During this time, Roland has seen Kent Hospital grow from a 219-bed unit to its present 309-bed unit, and is now reviewing plans for a 50-bed addition, scheduled to commence construction around the end of November 1979.

Roland has been a member of the New England Hospital Engineers Society since 1971 and a member of the R.I. Hospital Engineers Society since 1969, serving as Secretary Treasurer and Vice Chairman, and presently is the Chairman of the R.I. Engineers Group.

Memberships include the American Society of Heating, Refrigeration and Air Conditioning Engineers, Refrigeration Service Engineers Society, National Institute for the Uniform Licensing of Power Engineers, with certificates as certified Chief Engineer and Technical Instructor.

As a member of the International Solar Engineers Society and the Rhode Island Solar Energy Association, Roland has conducted numerous workshops on solar energy and was the first person to receive a grant in Rhode Island for installing a solar heating and domestic hot water heating system in his home that has produced 75 percent of his total heating and hot water load for the past 2 years and has just completed a system that will provide 100 percent of his total heating and domestic hot water load and reduce its electrical-kw consumption at the same time.

As a 20-year veteran of the Boy Scouts of America, Roland has served as Scoutmaster, Assistant Scoutmaster, committee chairman and committeeeman. During this time, Roland has received the Scouter’s Key, Scoutmaster’s Key, The Bucklin Award, and St. George Award.

Roland’s present interests are working around a log cabin that he has built for his family and grandchildren and promoting Energy Conservation in his community as a member of the Rhode Island Alternative Energy Task Force.

CHAPTER OF THE YEAR AWARD

The American Society of Hospital Engineers (ASHE) has an annual competition among its many chapters to spur on professionalism and self-improvement in our careers. The Chapter of the Year Award goes to the chapter which has done the best to demonstrate these achievements. Paul Taylor will be sending you a questionnaire asking for your activities during the calendar year of 1979. We need to know what seminars you have attended so that we can compile the record for NEHES. In the future we will hope that you can be keeping record of these training sessions which you have attended and keep the NEHES board appraised without a canvass. But anyway, we’re late and we hope you will promptly return the survey to Paul Taylor.

ROTATING BLACKOUTS

If you haven’t read Arthur Hailey’s book Overload you should. It discusses in fiction something very close to nonfiction. Since each of our hospitals is so closely linked to the requirement for electricity, we need to recognize that power generating facilities have a great many problems in the future. Electrical demand grows, fuel sources dry up, environmentalists’ pressure delays development and construction, and in the end we may face the “rotating blackouts” discussed in Overload.

As some will remember last summer a tie line between Rhode Island and Massachusetts failed and many communities in the greater Boston area were affected by what the power company calls “load shedding.”

Although power companies try to give priorities to hospitals they fully know we have reliable emergency generators which can carry us through the time necessary to rebalance the complex electric network.

What is really bleak about Overload is the activities of misguided terrorists who attack the big powerful electric company at the weak links. Blowing up poles on high voltage distribution lines as is now done sometimes is child’s play to the activities of these terrorists. More to their capability is blowing up primary substations and planting bombs in the very heart of the generating system — steam turbines and cooling water intake pumps. Perhaps the availability of a book like this will be fuel for the mind of a future terrorist who wants to see our country fail. Let’s hope that it awakens the rest of us enough to prevent just that event.
NEW MASSACHUSETTS GROUP SECOND MEETING

A review of meetings with Anne Lang, formerly with the Department of Public Health (DPH), dealing with the issue of qualifications for a medical engineer consultant discussed briefly, Alan Goldberg informed the board that the definitions of medical engineer and biomedical technician have been finalized and accepted by the DPH and will become a part of the inspection format.

A discussion was held on the structure of Engineering Departments and the Bioengineering and the use of trade swapping between the two departments as a means of maintaining the integrity of a good biomedical program.

President Menadue asked for opinions from the board in structuring and/or developing a format for the coming year. Each satellite group will be asked for input to assist the board by providing direction.

A discussion was held regarding the viability of singular, joint inspections by regulatory agencies and the board was in agreement that the Hospital Engineers should work on the Life Safety aspects and not clinical, pharmaceutical, etc.

All agreed on a handbook type of guide incorporating all inspection criteria and universally acceptable to all agencies and hospitals.

It was noted that Senator Jack King of Beverly introduced a bill in the Massachusetts Senate to provide a single inspection unit in the interest of reducing costs to hospitals, but the bill died in committee. Senator King plans to try again and would like to have assistance in terms of costs to hospitals for the various inspections performed by the many agencies.

At this point, the board welcomed John Delia who is serving an internship in Senator King’s office. John briefly reviewed the problems of numbers of inspections and one agency checking another. He announced that the General Accounting Office has approved the JCAH as the inspecting agency and the JCAH is working on setting up standards of equivalency.

A problem in reducing duplication is the possible loss of jobs in comparison to savings to the State.

John stated the need for data from the Massachusetts Engineers on costs involved in preparation for inspections (i.e. man hours and dollars) and the costs for corrective agencies. The board agreed to undertake this assignment and all satellite groups will be asked to assist.

ENERGY CONSERVATION PROJECT

At one time it was economical to make chilled water using a steam absorption unit containing lithium bromide with water acting as the refrigerant. Those were the days when steam generally produced by cheap oil, was more economical than electro mechanically produced chilled water. Now it isn’t the case. Although electricity has increased in cost the margin of difference is in favor of the electric centrifugal unit. The Lawrence Memorial of Medford has just faced the problem dealing with an aging 350-ton absorption unit which over the 12 years of its life has not performed very well. To be blunt, tube leaks have been difficult to find and the photo below shows the latest attempt to test the T50 concentrator tubes for leaks.

Applying 1000 psi water pressure to concentrator tubes of steam absorption unit.

Age and economy of operations favor a replacement. Further, there appears a need to tie two independent 350-ton chilled water loops together and apply the economy of electrically generated chilled water to the lower demands of spring and fall. Doing this has an added benefit in that a breakdown allows for a back up unit. In other words, something is better than nothing! Further, the heat of summer taxes the electrical systems so much that we can expect, as happened last summer, power outages lasting several hours. Having a steam absorption unit tied into both formerly independent loops now allows for maximum effective use of limited chilled water so that the highest needs for cooling can be met during a power blackout.

Since 6-inch and 8-inch steel piping for chilled water is normally installed first in the empty shell of the building structure, it becomes difficult to thread such lines through the maze of ductwork, steam lines and electrical conduit. But do it we must in order to tie the two loops together. We will let you know next installment how this develops. First, however, we had to make the decision of what to do with a basic system to the hospital’s operation, which was weakening as well as being a drain on consumption of valuable energy resources. The immediate decision is not cheap, but five years from now we will be glad we made it.

David B. Hathaway
Editor

SUPERVISORS EVALUATED ON ENERGY SAVINGS

Brunswick Maine Regional Memorial Hospital has come up with an innovative approach to saving energy dollars, according to Lester W. Hodgdon, its controller.

“The key to our formal energy management program is the appointment of energy managers in each department,” he says. “We’re making energy management an item of annual review on these supervisors’ evaluation forms. The goal is to assign direct responsibility for energy savings and to motivate participation by all hospital personnel.”

Hodgdon, who serves as cost containment chairman, notes that Regional is the first Maine hospital to adopt this management approach. To prepare energy managers for this new responsibility, the hospital will provide in-service seminars on energy conservation. Percy Hanscom, maintenance director, has been appointed to conduct the seminars.

“We’ve already realized considerable savings through our voluntary energy conservation efforts,” Hanscom comments. “But this approach will allow us to realize long-run cost effectiveness. We want people to realize that this is more than a matter of turning off the lights when they aren’t needed.”

As the management program gets underway, the committee will be preparing a monitoring system to provide graphing of kilowatt hours and gallons of fuel oil consumed. Energy managers will be kept informed of the effectiveness of their departments’ efforts. Personnel director George Spino points out that each manager will have a detailed list of energy conservation duties to be accomplished on a daily basis. “We’re making this a criteria of good management by placing it squarely on the shoulders of our supervisory people,” Spino says, adding that he expects positive results during the program’s first year of operation.

SOUTH SHORE ENGINEERS

Fifteen engineers met in December at the Four Quarters Restaurant in Lakeville, MA. Besides discussing the minutes of the NEHE Board held in Tewksbury, they reviewed the Surveyor which contained an article related to obtaining accreditation through alternate cost-effective methods and still assuring safety to life. Also discussed were the new FCC criteria on interference by in-house paging systems, and the transportation of waste-where, how, when and required record keeping.

Sponsoring their meeting was the Samuel Herwitz Company which demonstrated omega lubricants, magna alloy and welding products. The lubricants were demonstrated as to their antiemulsification qualities and lubrication qualities. These lubricants are now with no impurities added. Also demonstrated were the properties of welding rods and the properties of the guaranteed flux.

James Parmenter
Secretary Treasurer